UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/568,742	10/02/2006	Michel Monnerat	LUTZ 200641	4969

48116 7590 05/12/2010

FAY SHARPE/LUCENT
1228 Euclid Avenue, 5th Floor
The Halle Building
Cleveland, OH 44115-1843

EXAMINER	
NEFF, MICHAEL R	

ART UNIT	PAPER NUMBER
2611	

MAIL DATE	DELIVERY MODE
05/12/2010	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/568,742	MONNERAT, MICHEL	
	Examiner	Art Unit	
	MICHAEL R. NEFF	2611	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *04 February 2010*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1,2 and 4-9* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1,2,4,5 and 9* is/are rejected.

7)☒ Claim(s) *6-8* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Response to Arguments

1. Applicant's arguments, see remarks, filed 2/4/2010, with respect to the rejection(s) of claim(s) 1, 9 and 4-8 under Sandberg and Karouby have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of Yousef et al..

Claim Rejections - 35 USC § 103

2. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

3. Claims 1, 2, 4, 5 and 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lennen (US Patent 5,818,539, see IDS) in view of Yousef et al. (herein after Yousef) (US Publication 2003/0081659 A1).

Re claims 1 and 9, Lennen discloses a method and device of validating the detection of a correlation peak between: a signal transmitted by a plurality of navigation satellites (Col. 1 lines 20-28) and received by an radio navigation satellite system (RNSS) satellite radio navigation receiver (Col. 1 lines 20-28), said signal corresponding to a sum of signals each sent by a satellite and each modulated by a spread spectrum signal characteristic of said satellite (Figure 11 element 22; Col. 2 lines 25-28; Col. 5 lines 2-15), a local replica generated by said receiver (Col. 2 lines 25-32), said replica being the replica of a spread spectrum signal characteristic of a satellite that is being looked for (Col. 2 lines 25-32; Figure 11 element 28), said method including a step of

determining the correlation function as a function of time between said received signal and said local replica (Figure 11 element 30; Col. 2 lines 25-45, also lines 53-60), but fails to explicitly disclose where said method being characterized in that it further includes a step of comparing said correlation function with the theoretical autocorrelation function as a function of time of said spread spectrum signal characteristic of said satellite that is being looked for over the whole of the vector of the correlation function wherein comparing said correlation function with the theoretical autocorrelation function includes a step of comparing secondary peaks of each of said functions.

This method and device design is however disclosed by Yousef. Yousef discloses where said method being characterized in that it further includes a step of comparing said correlation function with the theoretical autocorrelation function as a function of time of said spread spectrum signal characteristic of said satellite that is being looked for over the whole of the vector of the correlation function (Paragraphs 0096-0097; Figures 1-2) wherein comparing said correlation function with the theoretical autocorrelation function includes a step of comparing secondary peaks of each of said functions (Paragraphs 0096-0097; Figures 1-2).

Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the disclosure of Lennen in order to incorporate the multipath condition processing provided by the disclosure of Yousef in order to incorporate the full vector comparison and processing in order to allow for accurate positioning validation.

Re Claim 2, the combined disclosure of Lennen and Yousef as a whole discloses the validation method according to claim 1, Lennen further characterized in that it includes a step of determining said theoretical autocorrelation function as a function of time of said spread spectrum signal characteristic of said satellite that is being looked for (Figure 10 and associated disclosure; Col. 2 lines 6-24).

Re Claim 4, the combined disclosure of Lennen and Yousef as a whole discloses the validation method according to claim 1, Yousef further discloses that said comparison step includes a step of calculating the correlation between said correlation function and said autocorrelation function (Paragraphs 0096-0097).

Re Claim 5, the combined disclosure of Lennen and Yousef as a whole discloses the validation method according to claim 1, Lennen further that said spread spectrum signal is a signal modulating said signal with a known pseudorandom sequence replacing each bit of said signal (Col. 2 lines 25-28; the use of spread spectrum inherently implies the use of pseudo random sequencing in order to control the spreading pattern across a given bandwidth to one of ordinary skill in the art).

Allowable Subject Matter

4. Claims 6-8 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

5. The following is a statement of reasons for the indication of allowable subject matter: The prior art of record fails to anticipate or render obvious the limitations involving the intercorrelation function.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to MICHAEL R. NEFF whose telephone number is (571)270-1848. The examiner can normally be reached on Monday - Friday 8:00am - 4:30pm EST ALT Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Shuwang Liu can be reached on (571)272-3036. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/MICHAEL R. NEFF/

Examiner, Art Unit 2611
6.

/CHIEH M FAN/

Supervisory Patent Examiner, Art Unit 2611